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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,954	08/31/2005	Ahmed Kefli-Cherif	271539US2XPCT	8036
22850 7590 07/27/2007 OBLOON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HOLMES, JUSTIN K	
			ART UNIT 3681	PAPER NUMBER
			NOTIFICATION DATE 07/27/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/533,954	KEFTI-CHERIF ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Justin K. Holmes	3681	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31 and 41-51 is/are rejected.
- 7) ☒ Claim(s) 32-40 and 52-60 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/4/05</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The Examiner acknowledges receipt of the Preliminary Amendment filed on August 31, 2005. The new Abstract has been entered. Claims 1-30 have been cancelled. Claims 31-60 are currently pending.

#### ***Drawings***

2. The drawings are objected to because the drawings should be free of extraneous markings and should be free of erasure marks and stippling. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 41-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, Claim 41 states that "all the elements of the third gearset are spinning at the same speed". This limitation is indefinite as a planetary gear system would have the sun gear, carrier and ring gear and planetary gears spinning at different rates in order for the planetary gear to function. As best understood for the purposes of continued prosecution it is assumed that the term "all elements" refers to the planetary gears as a whole spinning at the same speed.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 41 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,491,599 to Schmidt.

Regarding claim 41, the Schmidt patent teaches a power-splitting infinitely variable transmission with two modes of operation, wherein constituent elements thereof are distributed between two power trains connecting the internal combustion engine 12 in a parallel manner to the wheels of the vehicle 52, 62, including two epicyclic gearsets 88, 90, two electric machines 14, 16, one reducing stage 48 and adjusting means 244 that distribute the power between the two power trains differently depending on the mode of operation thereof, having a third epicyclic gearset 92 in series with one of the two epicyclic gearsets on one of the two power trains, the said third epicyclic gearset 92 cooperating with the adjusting means such that, in a first mode of operation, all the elements of the third gearset 92 are spinning at the same speed. The term "all elements" as broadly recited in the claims is defined as the planet gears spinning at the same speed. See Fig. 1. See column 16, lines 28-30 where it is stated that the carrier is "walked" so that the planet gears would then spin at the same speed as each other. It should be noted that "all elements" as in the sun gear, ring gear and planet carrier and planets can not all rotate at the same speed as the planetary gear system would not move. The two power trains as broadly recited in the claims is defined as the main power train along the axis which likes shafts 62, 62 and the second power train is defined as the transfer shaft 84. See Fig. 1 and column 5, lines 59-67.

Regarding claim 51, the Schmidt patent teaches a power-splitting infinitely variable transmission with two modes of operation, wherein the constituent elements thereof are distributed between two powertrains connecting the internal combustion engine 12 in parallel manner to the wheels of the vehicle 52, 62, including two epicyclic

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gearsets 88, 90, two electric machines 14, 16, one reducing stage 48 and adjusting means 244 that distribute the power between the two power trains differently depending on a mode of operation thereof, having a first compound gearset 88, 90, which makes it possible to connect the internal combustion engine to the vehicle wheels along a first power-splitting train, and with a simple gearset 64, which makes it possible to achieve power splitting, as well as with a second compound gearset 92, 94, such as to achieve a system for changing mode between at least two modes of operation of the infinitely variable transmission. The two modes of operation as broadly recited in the claims are defined as a forward and a reverse mode made possible by the actuation of planetary gear 94. See column 8, lines 9-17 and Fig 1.

Accordingly, all the elements of claims 41 and 51 are anticipated by the Schmidt patent.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,527,658 to Holmes et al. in view of U.S. Publication No. 2005/0064974 to Bezian et al.

The Holmes et al. patent teaches a power-splitting infinitely variable transmission with two modes of operation, wherein constituent elements thereof are distributed

between two power trains connecting an internal combustion engine 212 to wheels of the vehicle, including two epicyclic gearsets 220, 232, two electric machines 246, 248, one reducing stage 232, and adjusting means 262 that distribute the power between the two power trains differently depending on the mode of operation thereof, having a primary power train on which there is disposed a compound gearset 220, a secondary power train provided with an epicyclic gearset associated with each electric machine of the electric variator, and a mode-changing system 262 to selectively immobilize at least one spinning element 234 of one of the epicyclic gearsets 232 associated with one of the electric machines 246, 248, such that at least one mode of operation of the infinitely variable transmission is selected among a plurality of modes of operation. The plurality of modes is defined as a split mode, reverse mode and compound split mode. See columns 9 and 10 and Fig. 1. The first power train is defined as the power train that is created when the clutch 264 is engaged. The second power train is created when the clutch 262 is engaged and clutch 264 is disengaged. See Fig. 3 and column 13, lines 19-50.

However, the Holmes et al. patent lacks a teaching that the engine is connected in a parallel manner to the vehicle wheels.

The Bezan et al. publication teaches a transmission having two electric motors 3, 4 connected through two planetary gears 5, 6 to an engine 1. The engine 1 is connected in parallel to the wheels 2. See Figs. 4 and 5.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Holmes et al. patent to include the engine being

connected in parallel to the wheels as taught by the Bezan et al. publication in order to provide a shorter transmission case to take up less space.

***Allowable Subject Matter***

9. Claims 32-40 and 52-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 42-50 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,558,588 to Schmidt; U.S. Patent No. 5,558,589 to Schmidt; U.S. Patent No. 5,571,058 to Schmidt; U.S. Patent No. 5,730,676 to Schmidt; U.S. Patent No. 6,358,173 to Klemen et al.; U.S. Patent No. 6,371,882 to Casey et al.; and U.S. Publication No. 2002/0094898 to Hata et al. all teach various hybrid transmissions

***Facsimile Transmission***

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our



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examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin K. Holmes whose telephone number is (571) 272-5930. The examiner can normally be reached on 8:00am to 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JKH  
7/23/07

*Charles A. Marmor* 7/23/07  
CHARLES A. MARMOR  
SUPERVISORY PATENT EXAMINER  
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